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CHAPTER-11**USE OF CAROTENOIDS IN FISHES****Hauzoukim¹, Sagarika Swain¹, Wanglar Chimwar², Sambid Swain¹**

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Introduction

The market value of ornamental fishes depends on the quality of their colour in which emphasis is placed on achieving high levels of skin pigmentation. The pigmentation results from the deposition of carotenoids in muscle and skin of fishes through food since fishes cannot synthesise carotenoids de-novo. Fish gain carotenoids via aquatic food chain to maintain their colour through the food organisms which are rich in carotenoid pigments (Awasthi et al., 2014). Feeding of fishes with incorporated carotenoid in feed showed faster recovery of colours in the fish skins when compared to the control feed supplemented fishes in captivity (Dharmaraj and Dhevendaran (2011). In captivity, the absorption and deposition of carotenoid are affected by several factors including their kinds and dietary concentration, dietary nutrients composition, starvation, pH, hardness of water, constant exposure to sunlight, chlorine, turbidity of water, stress, toxicants and pollutants in water, low quality of water, poor husbandry techniques, nutrient-deficient